that there is a difference in the areas needful to discriminate motion upon different parts of the dermal surface, as there is difference of sensibility in discriminating compass-points far finer than the motor sensibility is. Whether it is more or less variable than the other, and whether it varies with locality in the same manner, our data do not yet enable us to say.

4. Effect of change of pressure or weights. It appears that the time needful for judgment of direction decreases as weights increase, but far more rapidly for the increment from 15 to 45 than for the equal interval from 45 to 75 grammes.

Their conclusion is that "local signs" are quite heterogeneous, and that in the strong tendency we have to move the touching dermal surface over objects in contact with it, we are seeking not merely to multiply but to diversify our sensuous data for judging the nature of the impressions, and to fill up the dermal "blind spots," between which impressions are sifted into us.—*Mind*, October, 1885.

ISAAC OTT, M.D.

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c.—GENERAL PATHOLOGY OF THE NERVOUS SYSTEM.

GILLES DE LA TOURETTE'S DISEASE.—The St. Louis *Courier of Medicine* for September contains a translation of an article by Paul Le Gendre on this subject, reviewing M. Gilles de la Tourette's contribution—*Archives de Neurologie.* The latter author reported nine observations, personal, or derived from La Salpêtrière. One of the cases was published by Itard in 1825, cited anew by Roth in 1850, and by Sandras in 1851 ; later was seen by Charcot. M. de la Tourette includes in the same group of cases Trousseau's laryngeal or diaphragmatic choreas accompanied by "tics" ; also the diseases of "The Jumpers of Maine," reported by Beard in 1880, the *Latah* of Malasia, by O'Brien, in 1883 ; the Myriachit observed by American officers in Siberia, and reported by Hammond in 1884. In all, the principal characteristics are a special motor inco-ordination, and an impulse at first to imitate speech and gesture—*èscholalie*, then to utter, involuntarily, obscene exclamations—*prolalie.* The disease generally begins at an early age, fourth to sixteenth years ; it affects both sexes, but males much more frequently. It has been seen in all classes of society, and in all latitudes. Moral emotions, especially fear, have been invoked as causes, but the true and determining cause is heredity, if not of the disease itself, at least that of a defect of the nervous system.

The mode of commencement is nearly always the same. A special motor inco-ordination is generally observed in the child at school or at home. This consists in crises of muscular twitchings, which agitate one of the upper extremities, then the other, and the face. One of the arms is jerked with convulsive movements ; the fingers extend and flex alternately ; the shoulders are

shrugged up ; the eyes wink incessantly ; one or the other of the buccal commissures is violently drawn up and down ; the masseters in contracting produce a grinding of the teeth ; the tongue is protruded and then drawn back into the mouth, but sometimes not soon enough to escape being bitten ; the head is bent alternately forward, backward, or laterally. Inco-ordination then appears in the lower limbs, and as, instead of being limited to isolated groups of muscles, the contractions affect all the muscles of one or the other limb, often both at the same time, we see the patient stamp with the foot, squat down and rise up, very often jump up, or down, or jump forward. In many cases these different movements are executed simultaneously, and are grouped together to form a special complexus, although varied, the predominance of the contractions in a group of muscles giving to the physiognomy of each patient an objective character quite peculiar. The constant characteristic of the grimaces and contortions is their suddenness and their rapidity. All at once, when nothing in the appearance of the patient causes suspicion of any thing peculiar, the spasmodic movements occur one or more times, and then every thing is in order again. The contractions limited to the face and upper extremities take place very frequently at intervals of only a few minutes ; the greater movements, as jumping, sometimes take place every quarter of an hour, every hour, or less, according to the case. These crises of inco-ordination may be provoked or aggravated in frequency or intensity by moral or physical emotion, the acts of persons near by, or by unexpected sounds. They are completely suppressed in sleep, which is so much the more profound, as the fatigue caused by the gesticulations during the day is greater. They diminish in frequency and intensity in the course of intercurrent febrile diseases. The motor inco-ordination is subject to exaggerations and remissions, more or less complete ; it may in some cases constitute the whole disease ; it is always the first phase of it, which has been known to continue for sixteen years. During this time the physical condition of the patient is as satisfactory as possible. The functions of nutrition continue good ; alimentation is never seriously disturbed ; the general and special senses remain normal ; the mental state remains perfect. These patients are often very intelligent, have perfect consciousness of their state, and make great efforts to master it. The moral state undergoes no injurious influence, except perhaps some habits of laziness which may interfere with their studies.

The second stage of the disease, which may be sometimes indefinitely postponed, manifests, after an excessively variable time, the curious phenomena of *écholalie*, which follows a constant and altogether special gradation. Most often it is on the occasion of an attack of disordered movements, at the time when the inco-ordination is at its highest, at the acme of the convulsion, that the patient utters forcibly an inarticulate cry—hem, ouh, ouah, ah, —which is repeated several times in succession, at variable inter-

vals. Then, the emission of the sound remaining always sharp and in perfect coincidence with the height of the convulsion, the cry becomes articulated, and the word pronounced takes, in certain instances, the character of an echo. If the patient hears himself called, in a loud voice, he repeats with force and rapidity his own name, and accompanies it with one of his gestures ; or, he repeats the last words of some phrase pronounced somewhere near him while making his ordinary convulsive gesture. It is not necessary for the production of *ècholalie* that an external sound shall strike the ear of the patient ; simply the sight of the word which he reads may determine him to repeat the word in a loud voice ; the thought alone of the word, or rather of the thing which it represents, may produce the same effect. The patient may repeat, perfectly, words pronounced in an unknown tongue. Besides the *ècholalie* there exists in certain patients an impulse to imitate gesture and acts. This may lead the patient to perform immodest or even dangerous acts.

A third characteristic symptom is *coprolalie.* It is so frequent and persistent that it is considered pathognomonic. It consists in the utterance in a loud voice of some foul word, an obscene expression, always on the occasion of a convulsion, and in persons whom education and mental condition would seem to place beyond the reach of such inconsistencies. The foul or obscene word is always uttered at the moment of the acme of the muscular action, and the gesture never emphasizes the signification of the word. A combination of *ècholalie* and *coprolalie* may exist.

The course of the disease is slow and insidious ; the commencement is obscure, the successive appearance of various symptoms occurring at variable intervals ; the disease once established, periods of exacerbation separated by periods of remission occur, sometimes so marked and so prolonged that one is tempted to believe in a cure ; nevertheless, the prognosis seems to indicate incurability. "Once a jumper, always a jumper," said Beard. Life is not shortened by the disease ; it has been observed at seventy-eight.

CERTAIN NERVOUS DISEASES OF INDIA.—Norman Cheviers, M.D., in the *Med. Times and Gazette*, No. 1,830, in reviewing the diseases of India, refers to the following peculiar forms of nervous diseases : *Lathyrism.*—Palsy of the lower limbs, caused by eating the *dal* of a lentil, *Lathyrus Sativus*, prevails extensively in Upper and Central India, especially near Allahabad and in Upper Scinde. Recently M. Proust has observed this disease in the Jurjura mountains of Algeria.

Paraplegia.—At and near Chittagoing, on the east sea-board of Bengal, a form of equine paraplegia, known as *kumree*, is so prevalent that, as a rule, horses are not kept there. Burmah ponies, whch, if let loose, might find their way home, do well in that climate. He believes that this disease does not originate in Cal-

cutta, or in the Upper Provinces, but occurs in various Indian localities within the influence of the sea breeze. He quotes from a report on the Travancore, which says : " Horses here, as well as along the western coast, are very liable to become weak in the loins, particularly if exposed to the wind when much heated. Castration is often resorted to as a preventative, and it seems to be generally admitted that geldings suffer less frequently than entire horses. When attacked with this complaint, the animal is rendered completely useless." In the report on the marshy district of Quilon, it is stated that in this climate also, horses are liable to this weakness of the loins, which appears to be an affection of the spinal cord, causing paralysis of the hind quarters. A permanent cure is seldom if ever effected. Mares and geldings are rarely attacked. The disease is most frequent during the land winds in November, December, and January.

Paraplegia, affecting the human race, is referred to. It is described by Bontius and his followers as "*Barbiers*," a sage old Dutch physician of that name, having himself suffered from it (see Copeland's Dictionary of Medicine). All paralyses of the lower extremities appear to have been thus designated. The word is no longer used, at least in India. A "*stroke of the wind*" is frequently spoken of. At the onset there is generally partial paraplegia, with sensations of pins and needles in the affected limbs. In the severest cases, the rest of the body becomes paralyzed and deprived of sensation and motion, the limbs become contracted, nutrition fails, and the patient sinks. Marshall saw many cases of it among the Caffres of a Ceylon regiment, but failed to notice it among the Cingalese. The author observed it among Europeans in Ceylon, and saw analogous affections in horses and dogs, from which, however, he never knew them to recover. The cause was evidently chill, especially during sleep. Most of the paraplegia seen in Bengal is attributed to chill, though cases also result from meningeal apoplexy, morbid growths, sclerosis, syphilitic disease, and ordinary causes.

THE PRECHOREIC STAGE OF CHOREA.—C. R. Stratton (*Brit. Med. Jour.*, No. 1,288) considers the possibility of a certain class of cases of chorea, being of infectious origin, and having a prechoreic stage. He gives the following summary of his views : The prechoreic sequence of events appears to be a soreness of the nose or throat, with often a fissure at the anterior margin of the nostril ; the sores yielding a micro-organism, which takes aniline dye ; an endocarditis, with the formation of valvular vegetations, which undergo coagulative necrosis, and develop colonies of micrococci ; the introduction of these products into the circulation producing capillary embolic infarction of the nerve-centres, and of the parts around the joints ; with the clinical symptoms of valvular murmur, blunted intellect, paresis, and vague pains. There the case may end, and recovery take place ; or it may run on to the choreic sequel,

especially if the child has been exposed to fright or mental shock.

ARTHROPATHIES ASSOCIATED WITH INFANTILE PARALYSIS.—Dr. J. A. Coutts, of London (*Med. Times*), reports cases to show that joint disease occurs in infantile paralysis, which are arthropathies in Charcot's sense of the term. He refers to Charcot's opinion that the joint phenomena in locomotor ataxia will be found to be consecutive to extension to the motor cells of the anterior cornua, along the radicular fasciculi. Again, that Charcot speaks of arthropathies as a factor in paraplegia from Pott's disease, tumors occupying the gray spinal substance, progressive muscular atrophy, acute myelitis, etc., although he gives no instance of it in infantile paralysis. The writer's attention was called to the subject by Barlow's paper on rheumatism in children, in which he warns his readers against confounding an affection occurring at the commencement of infantile paralysis with rheumatic manifestations. He has observed the following cases: 1. Male child, aged sixteen months, had been ill for six days when first seen. The mother stated that he was slightly feverish at the onset of the attack; there had been no convulsions, no movement of the left leg since the attack. On examination, the left ankle presented obvious swelling, but permitted free handling without pain or discomfort. It seemed warmer than the unaffected joint; the same condition along with a slight hyperæmia obtained in the whole left limb below the knee, and was not localized in the ankle-joint. There was no history of accident, and no bruising of the tissue about the joint. The left leg was flaccid, and the knee-jerk unobtainable, though readily elicited on the other side. The diagnosis of infantile paralysis was borne out by the result. At the end of a month the swelling of the ankle-joint was still present. There had been marked wasting of the muscles, the circumference of the left leg being nearly an inch less than that of the right, and its temperature much lower. The contrast between the wasted limb and the swollen ankle-joint presented a striking appearance. 2. Male infant, aged eleven months, at onset nothing beyond slight feverishness and fretfulness. A month later, when seen at the hospital, there was noted wasting of left leg, its circumference being nearly half an inch less than the right, with some flaccidity and loss of temperature. There was swelling of the ankle-joint, which had made its appearance a few days after the child had been taken ill. The dorsum of the foot was also puffy and swollen, as if œdematous, but the swelling was firm to the touch, and did not pit on pressure.

These cases ran the ordinary course of infantile paralysis. The swelling of the joints gradually disappeared in six weeks.

The author excludes rheumatism, on account of its rarity at such an early age, the absence of local tenderness and redness, the course of the disease, and its long localization in one joint. He

concludes that the joint-lesions were of spinal origin, and due to the same exciting cause as the paralysis.

CASES OF RAYNAUD'S DISEASE.—Dr. Colcott Fox has reported two cases of this disease to the Clinical Society of London. A woman, æt. forty-one, of extremely nervous temperament, dated her disorder ten years back, but she had probably had slight attacks some years previously. In the earlier stages all her fingers continually went "like white wax." This condition of recurrent local syncope gradually gave place to local asphyxia, and the feet became involved. The fingers gradually lapsed into a state of chronic asphyxia, which was intensified by frequent attacks of more severity, often leading to "blood-blisters" and ulceration. The nutrition of the phalanges suffered greatly, her hands being crippled, the fingers fusiform in shape, livid, shiny, and withered, the nails variously distorted, and the end plalanges much atrophied and almost immovable. The nose and ears become affected to some extent on exposure. Cold and nerve shocks are exciting influences. The second case, that of a male, æt. fifty-one, like one of Raynaud's cases, had diabetes. His hands were deformed, but he had suffered for several years with "dead fingers." He sought Dr. Fox's advice for symmetrical gangrenous patches on the skin, which recurred, and later for an attack of asphyxia of one great toe and lower third of the inner side of the leg, and then it was found that the other toe had been affected even more severely. On another occasion blood-blisters had formed beneath the ends of his toes.

Dr. Frank R. Fry, of St. Louis, also reports two cases. 1.—A female, æt. thirty-two, had been under observation for two and a half years, having suffered from extreme general anæmia—or spanæmia,—also uræmia, metrorrhagia, and great debility. Her heart was weak and irritable. She gave a syphilitic history. The symptom indicative of Raynaud's disease was the apparently bloodless condition of her hands. From the tips of the fingers to the wrists they had a bluish-white color, and the feel could only be described as cadaveric. She complained of an almost constant aching in them. The feet were in a somewhat similar condition, ischæmia not being so extensive as in the hands. This attack lasted for a week; later she improved, the attacks becoming less severe and less frequent. 2.—Male, æt. seventeen; when first seen all the fingers of both hands back to the metacarpo-phalangeal joint were in an asphyxiated condition, apparently bloodless, cold, and stiff. He moved and used his hands in a clumsy manner as if they were stiff from cold. Sensibility was much obtunded, though pain accompanied and followed this condition. His attacks had commenced about one year previous. They occur from one to three times a day, and last from fifteen minutes to an hour. Nothing abnormal was found except a slight irregularity and feebleness of the heart.

HEMIATROPHY OF THE FACE.—Dr. Giovanni Mingazzini, *Lo Sperimentale*, Feb. —, reports the case of a Roman girl, who had had intermittent fever from childhood; when fifteen, left hemiplegia occurred suddenly, getting slowly better after nine months. Later, cardiac disease was discovered. When eighteen, she was again seen for increased discomfort from aortic disease, and right facial hemiatrophy was observed. The right cheek was only slightly atrophied, but flushed on excitement more easily than the left; the lips and nose were twisted to the right, the right half of the tongue and of the uvula was atrophied, the right eye sunken and rather small and more watery, and on the right side the molar and canine teeth had fallen out. Surface temperatures were carefully taken and showed the atrophied side the warmer in all cases: on the cheeks the difference being as much as 1.5° F., in the axillæ 0. 7°, on the sides of the ad 0° 4. There was neuralgic pain over the right side of the head, indefinitely localized. No pain was caused by pressure on the cervical ganglia. Surface temperatures have been observed in two previous cases; in one Friedenthal found the affected side warmer than the unaffected; in the other Brenner found it less warm. There are no *post-mortem* records of such cases. The author attributes the condition to a lesion of the cervical sympathetic affecting the trophic fibres of the fifth nerve.—*The Practitioner.*

A CASE OF PARALYSIS OF THE LOWER EXTREMITIES WITH HYPERTROPHY OF THE SKIN, SUBCUTANEOUS AND MUSCULAR TISSUES.—Dr. John K. Mitchell, in the July number of *The American Journal of the Medical Sciences*, records a curious case, a female, aged fifty, which presents a total of several unusual conditions—paralysis, without any degenerative reaction, enormous hypertrophy of the skin and subcutaneous tissues, and increase of the size of the muscles due to the extraordinary overgrowth of their fibrillar elements. It has certain features in which it resembles scleroderma, and some that are like elephantiasis, and without the microscopic investigation it might have been taken for what on the first superficial examination of the patient it was thought to be, pseudo-hypertrophic paralysis.

But the skin had not the tense, hard induration which scleroderma shows. Scleroderma is usually found with more or less pigmentation; it begins with pain and œdema, and is nearly always accompanied with atrophy of the underlying muscles, and though it varies in position and may be limited or diffuse, it is seldom or never so absolutely symmetrical as the lesion described. Certainly there is a slight likeness to elephantiasis in the skin condition, but the general fever and inflammatory symptoms of that disease were never present, nor has the course been like that of elephantiasis, which progresses by recurrent attacks.

Nor on careful comparison does it seem much like the pseudo-hypertrophic paralysis. The age of the patient—this paralysis is

almost unknown in adults except where it has continued from infancy,—the persistence of the knee-jerk, and the troubles being, even after lasting so long, entirely confined to the lower extremities, are some of the differences. Here, too, no loss of voluntary contractility in any other than the affected muscles, nor any atrophy of the pectoral or dorsal muscles, a condition which Gower calls diagnostic of pseudo-hypertrophy, could be discovered. To the eye and touch, besides, the muscles in this case were much more lumpy and less homogeneous than they are in the false overgrowth.

A few cases of true muscular hypertrophy have been reported. The overgrowth in all of them was limited to the muscular tissue, and the malady began after great and long-continued exertion, or after depressing disease or injury. All of them were unilateral and in one limb only. Studies of extracted fragments of muscles showed the fibres to be double the natural breadth, and demonstrated an increase in the number of nuclei.

So far as Dr. Mitchell has been able to discover during the year which has passed since he first examined the case, there has been nothing like it known, and he thinks he has good grounds for saying that the complexus of symptoms is entirely a new one.—*Maryland Med. Jour.*

Hysterical Hemianæsthesia.—Dr. F. C. Fernald, of Washton, D. C., in a paper published in the *New York Medical Journal*, No. 362, giving the clinical pictures of hemianæsthesia due to hysteria, to alcoholic intoxication, to chronic lead-poisoning, and to organic brain disease, reports the following case of hysterical hemianæsthesia with hysterical hemiplegia. The patient came to the out-patient nervous clinic of the Massachusetts General Hospital, in which the writer was assistant. E. B., female, thirty-four years old, married, complained of inability to use the right arm and right leg; was able to walk with some difficulty by aid of cane; movements of arm and fingers possible but awkward. This inability to use her arm and leg had been going on for over two years. Previous to this trouble she had pain in right shoulder and arm, which she attributed to strain occasioned by housework, to which she was unaccustomed. After two months of pain she suddenly became hemiplegic. At the time of her visit to the clinic the knee-jerk was normal; there was no apparent atrophy of muscles on the affected side. By black-board test, the field of vision of right eye limited; color-perception also impaired in same eye; hearing on this side dulled to both air and bone-conduction; taste on right side of tongue absent; unable to distinguish the odor of terpentine in right nostril. Her general health was good. With encouragement was able, after a few minutes, to walk without the cane.

Depression of the Occipital Bone.—Dr. H. G. Lyttle reported before the Clinical Society of the New York Post-Graduate

Medical School, the case of a child, two months and six days old, with a marked depression of the occipital bone, with overlapping of the parietal. The child had slight convulsive movements of the hands and rolling of the eyes, with a disordered condition of the stomach and bowels. Dr. J. Hartigan had reported, in the *American Journal of the Medical Sciences* for January, 1884, forty-nine cases of trismus nascentium as being due to this cause. Dr. Lyttle presented this case to show that displacement of the occipital bone might occur without producing trismus.

W. R. BIRDSALL, M.D.

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d.—MENTAL PATHOLOGY.

SEXUAL PERVERSION IN A FEMALE.—Dr. Kiernan (*Detroit Lancet*, May, 1884,) reports the following case of sexual perversion in a twenty-two-year-old girl who had a neurotic ancestry on the paternal side. Her face and cranium are asymmetrical. The patient has always liked to play boys' games, and to dress in male attire. She has felt herself at certain times sexually attracted by some of her female friends with whom she indulged in mutual masturbation; these feelings come at regular periods, and are then powerfully excited by the sight of the female genitals. The patient, in the interval, manifests only repugnance to attentions from men. She has been struck with the fact that while her lascivious dreams and thoughts are excited by females, those of females with whom she has conversed are excited by males. She, therefore, looks upon these feelings as of a morbid nature. At times she is troubled by imperative conceptions, such as that if she turns her head around she will break her neck; to avoid this ideal danger she at times carries her head in a very constrained position.

MENTAL ASPECTS OF CHOREA.—Dr. H. R. Stedman (*Boston Medical and Surgical Journal*, August 6, 1885) states that although many of the ordinary symptoms of chorea are attended, at some stage, by mental phenomena, the motor symptoms so far predominate as to completely mask them. On the other hand, in the most severe cases, the mental disturbance which is often quite pronounced, being intensified by the energetic character of his movements, is apt to mislead the practitioner, who regards the case simply as one of insanity and sends him to the asylum. Whereas, if the case were recognized as one of chorea, he would hesitate to do so.

CARDIAC DISEASE AMONG THE INSANE.—Dr. T. Duncan Greenless (*Journal of Mental Science*, October, 1885) concludes: 1. That heart disease occurs with greater frequency among the insane than among the sane. 2. That this increase in frequency is in